INSTITUTE OF EDUCATION SCIENCES
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WEBINAR:

GRANT WRITING WORKSHOP FOR DEVELOPMENT PROJECTS

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PROCEEDINGS

Slide One:

Dr. ALBRO: Hello, everyone. I hope you all are well. This is Liz Albro. For those of you who haven't done a webinar yet, although I see some of you on the line have done one before, we ask that everyone put their phone on mute so that we don't get a lot of background noise and feedback, and, hopefully, all of you all have your slides in front of you.

The way we're going to do this is I'm going to walk through the slides and I'm going to ask you all, if you have questions, to use your chat function and send the question via the chat function to us here and I'll stop and pause at sensible spots and answer your questions to the best of my ability.

The focus of our presentation today is I'm going to talk about preparing Goal Two development proposals. I know that this has been a challenge for many applicants and partly because the requirements have not always been consistent, but I'm going to talk specifically about the requirements for Goal Two development projects for fiscal year (FY) 2009.

Slide Two:

I just want to start with a frame here. One of the things to recognize when you're preparing a development application or a development proposal is that the focus of a development project really is development, and the intent behind having a goal specifically targeting the development of new interventions is to encourage, allow, permit the research community to stop and take the time necessary to develop new education interventions and to take the time to do it well.

Any one of you on the line who have tried to develop a new curriculum, a new set of instructional approaches, knows that what we develop as researchers often doesn't translate the way we expect it to when we go out into the classroom. So we have tried to build in an explicit framework where researchers build in the time needed in order to complete this process.

So, what do we mean by developing new education interventions? The word "intervention" is used very broadly here. It can encompass things ranging from curricula (from curricula that are for a particular unit of, say, a science unit) all the way up through a full year curriculum or multi-year curriculum. It can be something that looks at new instructional approaches -- a new way of delivering a particular intervention, or say, particular kind of content.

You could propose to develop something that's supplemental or an add-on program. You could propose to develop materials for professional development or new mechanisms or techniques for providing professional development. Or you could even propose to develop an intervention meant to be delivered at the school or the district level.

Slide Three:

The other important overarching thing to keep in mind is that the research that the Institute of Education Sciences has funded is really solution-driven research. It's practical. It's applied. The goal is, through the research that we support, we will be contributing to the knowledge that will allow us to solve practical education problems in the United States.

For those of you not familiar with our goal structure, we currently support five different goals: the first being identification or exploration; the second being development; the third being efficacy; the fourth being a scale-up project; and the fifth being measurement. As I said, today, I'm primarily going to focus on the development goal, although I will talk a little bit as well as about the identification and exploration goal.

Slide Four:

So some of the challenges that I'm sure many of you on the phone are aware of when you try to put together a development project is that there is not one widely accepted system or widely accepted systematic process for developing interventions. Depending upon which type of an intervention you're developing, depending upon the tradition that you come from, you may come to the problem with a different set of models. We recognize this, right?

So the disciplinary differences are going to be there and I don't think that it is the Institute's intent to erase those disciplinary differences. But I do think it's important to acknowledge that there are disciplinary differences and to think about those differences when you put together your applications, and to think long and hard about how do you make sure that what you're describing is sensible not only for folks who are familiar with your disciplinary approach, but also for those who may share a similar topical interest but may be coming to the problem with a different disciplinary background.

Slide Five:

So what's the key question? When you're thinking about your development project, the framing question that will hold for anything that you develop is, Why is the proposed intervention -- why is that which you want to spend all this time and effort developing -- why is that likely to produce better student outcomes as compared to current education practices? That should be an overarching, organizing question and framework that you use throughout the development of your proposal.

Slide Six:

So one of the things you're doing here when you propose a new intervention, you're breaking out of the old shell -- of the old way that things were done, and you're proposing to develop a new way to tackle perhaps an old problem, perhaps a new problem.

Slide Seven:

It's important to recognize that before you can begin to propose to develop an intervention, there's some work that needs to already have been done. The first is that you should have a well-defined description and understanding of the current problem. So what is the problem that you are trying to address? So, here are some questions you're going to want to consider when you're thinking about putting your development proposal together.

You want to be able to describe the underlying processes that may explain the current problem. You're going to want to know what are the potentially malleable factors that you want to target in your intervention, and so there may be a range of different malleable factors that you could propose to change this particular education problem. You need to be able to describe what those are. And you also need to be able to identify what distinguishes between effective and less effective practices.

Having these foundational components in place will be necessary for you to put together a well-articulated development project so you can say, here is the process that I'm examining, here are the malleable factors I'm proposing to change, and here's how I'm going to know what's effective and not effective, or what's working in the way I intend for it work and what's not working as I hoped it would work.

Slide Eight:

So one other way to state this is that development work actually begins at the Goal One stage. Our Goal One projects have a sort of joint title now, identification and exploration, and if you feel like you're still not quite sure what the underlying processes are, what the particular malleable factors are that you want to target in your intervention, then maybe you need to go back and revisit the RFA (Request for Applications) and see if maybe you're really at a Goal One stage as opposed to a Goal Two, where you're ready to actually begin developing the intervention itself.

Slide Nine:

For FY 2009, so this is for the applications that are due October 2 (2008), there are three criteria, or three components, to any development project. The first is that the goal, the purpose of doing this development work, is that at the end of your 3-year project you will have a fully developed intervention. You will have collected some pilot or preliminary data on the feasibility of implementing the intervention in schools or wherever the intended audience is. You will have also gathered pilot data on the promise of the intervention for generating desired outcomes.

So this is where you want to be at the end of your project. I said 3 years. It could be 2 years, depending upon how far along you already are.

Slide Ten:

So, when you start to put together your application, where do you begin? Clearly, you're going to want to talk about the significance of the particular intervention you're developing and most of the significance, or the question of significance, is really answered or addressed by answering this question: why develop this intervention? So reviewers are going to want to know what makes the intervention that you're proposing unique and different from that which already exists.

In your application you should spend time setting the context for the proposed intervention. You need to help the reviewers understand what does current practice look like? So if you're going to do a beginning literacy intervention, talk about what beginning literacy instruction in a typical classroom looks like.

Then you need to take some time explaining what you see as the shortcomings of existing practice -- what is not being addressed, or what's being addressed in an incorrect fashion according to your own research or your knowledge, and use that information to really clarify the education problem that you're hoping your intervention is going to address.

Slide Eleven:

Then you also need to spend some time describing the proposed intervention. Now, whenever I talk with individuals about this, they often say, "But I don't know what it's going to be yet! I don't know, I'm developing it." And it's true, you have to walk a kind of fine line.

You have to describe what you think the intervention is going to look like, but you also have to make it clear to the reviewers that it's not already completely developed because, then, you shouldn't be asking for this funding. So you need to spend the time to think about what you expect the intervention will include when it's fully developed.

So you need to talk about what are the components or the features of the intervention. And again, this should come out of your review of the literature, it should come out of your understanding of the theoretical model of the intervention, and you should be able to talk about the components or the critical features of the intervention at least as you believe they will be at the beginning of this process.

You need to take the time to describe who will implement or use the intervention. Is it designed for teacher use? Is it designed for paraprofessional use? Is it designed for the children themselves to us without any adult mediation? Who is the user?

And, then, how do you see it being used? Are we talking about a full curriculum replacement? Are we talking about an afterschool program? Are we talking about it maybe as a homework type of set of materials? What is your use of it going to be?

And then when you're describing the intervention, make sure to discuss the practical importance of it. So, what do you hope to change or improve or make function better in the context of education?

Slide Twelve:

I'm going to walk through a little bit of an example here that is combined from many things altogether. So if I stumble, know that it's the example, that I made it too complicated. But, here, let me just walk you through this.

Imagine that what you are trying to develop is a new teacher professional development program for pre-kindergarten, English language learner, vocabulary instruction. So when you're developing an intervention, you need to consider at least four different components.

The first is, What's the content of the intervention? I think this is true whether you're talking about a curriculum that's for the children to use directly, whether it's for teacher professional development, whether it's a school-level intervention. What's the meat of the curriculum going to be?

So, in this case, the content is knowing what words will be taught and knowing what the rationale is for that decision. So there are many word lists out there. What's the word list that you pick for these prekindergarten children and what's the rationale for using that list?

For teacher professional development, you're also going to need to specify what are the strategies for vocabulary instruction. Again, what are the techniques that you want to teach your teachers to use? And, again, what's the rationale? What's the theoretical justification for picking these strategies over another?

And how are you going to get this knowledge to teachers? What kinds of materials are you going to prepare? For a (teacher) professional development project, this is probably going to be, in many ways, the meat of the proposal, right? You want to figure out how you're going to get this information to the teachers, and the delivery of information to teachers may be the critical dimension.

So what materials do they need? Are you going to give them written materials? Are you going to give them materials over the Internet? Are you going to give them video materials? What?

How are the teachers themselves going to be instructed? Are you going to do a one-on-one coaching model where you have live coaches go into the classroom? Are you going to do a form of professional development that occurs at a distance over the Internet? Are you going to do a traditional workshop model? What's your mode? And again, what's your rationale? Explain to the reviewers why you've decided to pursue this path.

And then finally, you should describe for your reviewers what the objective is of this teacher professional development. After the teachers have gone through their professional development, what should they be able to do and what should their students be able to do?

For those of you who know the RFA well, and I'm assuming there are many of you on the phone who've read this through, this objective fits into our notion of identifying what “operating as intended” should look like, right? In order to understand what it means for an intervention to be operating as intended, you need to have thought through what the end-users of the materials will be doing with them.

Slide Thirteen:

So, back to the "why" question. Why develop this intervention? You want to think about your theory of change, and the way we've defined theory of change is the underlying answer to what is the causal chain of events that leads from the implementation of the intervention to the desired outcome. So this is your theoretical model -- what has to change in order for other things to change down the line? And why? What's the rationale for that?

So you need to draw on theoretical work as well as on empirical work. So it is very rare to see a proposal where there is not prior empirical work. It doesn't have to be specifically related to the intervention you're proposing, but, clearly, you're going to be drawing on prior research that has occurred in areas related to your own area. And, again, you need to describe how the proposed intervention addresses the shortcomings of what's currently happening in the classroom.

Slide Fourteen:

So let's take our example. Here's a simple model of change. You have a professional development intervention: that's the target of what you're developing, right? You want to develop this intervention. The idea is that you're going to train teachers and you're going to train them to deliver vocabulary instruction. So there's the causal change. You're going to change something about the teachers through the intervention so that they change the way they instruct kids to learn new words and that's going to lead to some outcomes.

Now, I have a little feedback loop. You guys can't see me pointing my fingers at the screen. There's a little loop in this model where, when the teachers are teaching these new words, they are getting information from their delivery of the instruction that then feeds back into their own professional development.

This is one model. It doesn't have to be the only model, but this is the example.

Slide Fifteen:

So what does that mean? Let's think about your proposal. You're trying to articulate your theory of change, and one of the things you need to make sure you include in your application, in your proposal, is you need to unpack how you're defining each of these units, each of these components, how you're measuring it, and what are the things you're going to be paying attention to as you develop and test these different modules over the course of the project.

So, for vocabulary professional development, for the PD sessions, what do you have to think about? You have to think about your resources. One of the things you'll need to say is how many sessions are the teachers going to need and when are they going to occur. And this may be something that you want to define at the outset of your proposal, right? You say we're going to have 3 days in-service before the school year starts and we're going to have four workshop conditions over the course of the year.

So you can set that at the outset. But one of the joys of a development project, if you will, is that that can be something you can test. You can see whether, in fact, that amount of time is sufficient, and whether it's operating as you hoped. You need to define the content, what's going to go into the vocabulary professional development. How is it going to be delivered? What are the materials?

How do you know whether the professional development's working as it was intended? You need to go collect some data. Fancy that, right? You need to collect some data. So here are some thoughts about the kinds of outcomes and measures that you might collect that would help you think about whether this vocabulary professional development intervention is operating as you intended.

Clearly, you want to collect some sort of attendance. It's important to know if the teachers are actually attending your professional development sessions. If you have an online teacher resource -- say, there's a website the teachers are expected to visit -- keep track of that. Are the teachers using it in the way you envisioned?

Are there teacher logs that the teachers are supposed to keep track of? You can use interviews to talk with the teachers after they've completed various professional development sessions. And you can even use tests, right? You can create multiple choice tests or some form of test to see whether the teachers have learned what you hoped they learned from the professional development.

So that's that piece. But you also want to gather some information about what actually happens, right? So one of the links in the chain here is that this professional development is going to change what actually happens in the classroom. So, you need to be measuring not only what happens during PD, but also what happens once the teachers try to instantiate that professional development.

How are you going to capture that? During instruction you can use continuous assessment. You can be in the classroom. You can use different kinds of data. You can collect observations. You can observe whether the teachers are using strategies for teaching vocabulary. So there is a range of different ways.

But what's important is that you need to be thinking at this level of detail and reporting this level of detail in the proposals that you're putting forward for a Goal Two project. So make it clear. What are the activities you're looking for? How are you going to collect data that speak to whether those activities are actually occurring in the classroom?

And, then, of course, since student outcomes are usually the objective here, and as you move into that final pilot study, you're going to want to be collecting some form of outcome data for student change. You need to define what those outcomes will be.

Slide Sixteen:

This sort of first section I just talked about really is encompassed under the significance section of any sort of a development project. So what you're really doing in the significance section of a development proposal is you're laying out why you're developing what you're developing. You're laying out the theoretical and empirical justification for what you've developed. You're articulating your theory of change.

I recommend for those of you who like figures and graphs and who find them helpful to make use of appendix A, create a visual that will support the text where you can say, Here's how we believe these pieces will all work together. That's a significance section. And for development projects, the significance section is typically a large piece of any application that's put forward.

The other big piece of a development application is the research plan, the research narrative, and this, in many ways, is the meat of the application because this is where you really will explain to the reviewers what you plan to do, and it's really important for the reviewers to be able to understand how the development process is going to unfold.

So, in your research plan, in your research narrative, there are three big questions you want to make sure you've addressed. First, you want to describe what will be developed. So this is the intervention.

One of the critical parts of a development project is to make it really clear what already exists. So it's likely that for those of you who are planning to put in a development project, you already have some prototype materials. You already have some early development work that you've done on a particular component of the curriculum or a particular unit, but there's a lot more to do before it'll be a fully developed intervention ready to be implemented in classrooms or wherever you intend for it to be developed. You need to make it clear what you have already and what still needs to be developed.

You then need to spend time talking about how it will be developed, and over the next few slides, I'm going to talk about some more about that "how" piece. This is a critical dimension.

And, finally, you need to make sure you give the reviewers enough information so they understand how the intervention or the components of the intervention will be tested to see if it or they are “operating as intended”. So, how do we know if the changes that you are seeing in student outcomes are the ones you expected to see?

Slide Seventeen:

One thing you could do, again, is make use of appendix A where we have tables and figures. There you can lay out a table that makes it clear to the reviewers what components, features -- what contents exist, are partially developed, or still need to be developed. This can be very helpful. It can also help you figure out where exactly you are, what do you really have, and what do you need funding for to finish developing this intervention.

Slide Eighteen:

The other part that's critical, and I'm going to be beating a dead horse here, but I hope you realize the critical part that you play in defining "operating as intended." So you need to make it very clear, what does this intervention look like when it's operating as intended? So, you need to describe what are the criteria that you're using, and you should think long and hard about the degree to which this maps well onto the theory of change that you've articulated.

Slide Nineteen:

The other piece, and I know this is a very important part of the whole proposal, is to describe what data will be collected to determine how the intervention is operating. Typically, this involves the collection of process data -- so, observation of teachers implementing the lesson, or observation of students completing work that they need to complete in order for them to have gone through a lesson.

It often involves gathering feedback from users and that feedback can come in the form of focus groups. It can come in the form of survey data. It can come in the form of individual interviews. Those are just ones that pop to mind immediately here.

And then you need to explain how you're going to code the data that you're collecting and use them to identify whether the intervention is operating as intended. So I think one of the hardest things about writing a development application is that you have a lot of moving parts all at once and they all feed back to one another, they're all linked.

And I think that it's really important that you spend the time to make sure that all of the components of your application make sense in light of each other because you have to say, okay, so here's where I am, here's what the data say so far, here are the pieces I want to develop, here are the data that I plan to collect to tell me whether, in fact, this intervention is operating as intended, and here's what I'm going to do if I find out that it's not working like I expected -- where the kids are just glazed over and not engaging at all with the material that I've prepared.

Slide Twenty:

A little note here, a caveat: in the cognition and student learning topic area, as well as in the education technology topic area, there's an explicit discussion of the use of experiments to determine if the intervention and/or components are operating as intended. This is when you're trying to test out whether a particular component is something you want to keep in the intervention. Say, length of time: it's something that you can manipulate easily in a small-scale experiment. Say you're going to work with ten kids. Maybe you're even going to do, say, within-subject design: you are going to have kids learn one set of materials using one technique and another set of materials learning another technique in order to see if one or the other of those techniques seems to have a stronger influence on the intended outcome.

And then you will continue on, right? You could do a whole series of these small-scale experiments to try to figure out how the pieces are working and then you can put them together into an entire intervention.

So the whole point of this little note here was to say that it's acceptable to use this methodology for other topics for the purpose of development and I think the critical dimension is that these sorts of small-scale experiments are not meant to be answering the sort of larger efficacy question. Rather, it's for tweaking, for figuring out which is the right component to use for this particular set of materials.

Slide Twenty-one:

I believe in repetition; I think it's a good way to make sure that people are listening and learning here. So just to restate, define operating as intended, right? What does it mean?

Tell the reviewers what it means to you. Explain to the reviewers what data will be collected to determine how the intervention is operating. And explain how the data will be used to revise the intervention, if needed.

I think, actually, many applicants do a good job with the first two. They'll define operating as intended and they'll define what data will be collected. But they do a less good job at explaining how they're going to use that data to revise the intervention, if needed.

So I have a question here and it says, "I'd like to hear more about experiment use, pre- and post tests are often done, and it's not about comparing two approaches. So I'm not completely clear on when it's appropriate."

I think that we have to be careful here, right? So the idea is that this is a small-scale piece. So we're not necessarily comparing approaches in the large sense of the word. I'm not coming up with good examples here, but it's something that if a child needs, say, ten minutes of exposure to one word versus five words exposed over ten minutes, right, so the time constraints are the same, right, so it's ten minutes of vocabulary instruction. But are they exposed to one word versus five words? And which of those exposure amounts leads to retaining the words over a week?

So it's something sort of on a smaller scale like that would then have implications for how you would embed that particular tradeoff, how you would make a decision about that in the course of a larger intervention. I don't know if that helped at all or if it just mixed it up more. So keep asking questions if I don't make it clear as we move forward.

Slide Twenty-two:

I've got another example here and I'm digging myself holes with examples. So I'm tempted to skip it, but I think I'll walk through it here. So here's another piece.

So for the example we were talking about before, so we have teacher professional development. We're trying to develop good teacher professional development for use with prekindergarten teachers who are working with basic literacy instruction for English language learners.

So here's one possible technique, right? We talked about mode of delivery of professional development. So here's the use of video clips.

You could propose to develop video clips that could be part of this professional development. You could select possible examples from videotapes of master teachers implementing the strategies that you'd like to see them implementing.

Then you could propose to write accompanying text to go along with the clips, so your belief is that the teacher should have not only the video clips, but also some narrative that accompanies that, that provides instruction for the teachers. You then ask teachers who are similar to the target audience, so these should be preschool teachers who are working with English language learners, to review these prototype clips and the text and give you feedback. Are they understandable? Is the text written at a comprehensible level?

You could also prepare or propose to prepare a semi-structured interview for teacher reactions in key areas where you ask them to comment on things like the clarity of the main message, the length of the clip or the text, the organization of the text and its relationship to the clip, and anything else you really want to learn from the teachers when you have them interacting with this.

Then you would propose to do a content analysis of the interview data to identify what needs refining. And then you would continue to refine and assess all of this information that you're gathering from the teachers who are testing out this set of video clips until you get consistent responses for identifying the main message, right? So this is something you want to make sure that all the teachers who go through this are identifying the main message and that they have all perceived that the text in clips is user-friendly.

So, the idea would be: here's your operating as intended, right? The operating as intended is that the teachers are able to identify the main message of the video clip and they see the video clips as user-friendly, right, the clips and the text. So those are the two pieces for this component that you've identified as critical. And what you'll do is you'll gather all this information, you'll analyze it, you'll feed it back and you'll continue in this iterative process until you reach a point where the teachers who are testing this out are able to complete the tasks that you wanted them to complete.

I hope that was clear. But the idea is that when you're doing this development process, there are a lot of small steps that you need to take along the way in order to get to the intended outcome.

I'm stopping because I have questions it looks like. I think this goes back.

So here's the question. "We want to design a study to teach new teachers to change their instruction in ways that impact student engagement and behaviors in ways that in previous research have been shown to have a variety of instructional benefits. Is showing that the teachers change their instruction and it resulted in changes in student involvement enough, or do we have to show improvement in test scores as well?"

Yeah, I think it depends upon which topic you're applying to. That's sort of the first answer. So, clearly, there needs to be a change in student behavior. And so the question is if you come in, say, under a social behavioral sort of a competition where the goal is to change behavior, and behavior is measured along this level of engagement, then that may be sufficient.

If, on the other hand, you're coming in under reading and writing, or teacher quality in reading and writing, and the target is to change student engagement and motivation so that you can improve their literacy outcomes, then you're going to need to have some sort of an outcome that captures changes in literacy, right, in their reading and writing performance.

And test scores is a sort of a general term. You can define what the measures are that make sense given your outcome of interest for a development project.

You guys keep sending me questions so I know whether I'm clear or not. One of the most challenging things about a webinar is that you're speaking to this empty screen that doesn't give you any facial queues. So, please, let me know if I'm not clear. All right, I'm going to press ahead here.

Slide Twenty-three:

So here's another example. Say one of the other components of this teacher professional development intervention that you're proposing to develop involves the use of hypermedia and you want to gather some data that speaks to the factors that facilitate the teacher use of hypermedia resources in the context of teacher professional development coaching, right, so the coaching is a piece of this.

Slide Twenty-four:

So here's another example. Again, I think the level of detail, one of the things to attend to here, is that there are a lot of components that go into this process. And I know that any of you on the phone who have developed an intervention at any level of complexity know there are a lot of small components that go into this and I think it's really important for applicants to remember to articulate all the steps along the way to help the reviewers understand what your proposed plan is.

Here's another example. So, the first thing that you're going to propose is to gather data on the factors that facilitate teacher use of hypermedia resources in the context of a professional development program. You should have some ideas about what those factors might be, but it's not a well-defined field.

Your intent is to do a small field test of the professional development program with the hypermedia and so you're going to ask teachers to use this, maybe over the course of ten weeks, and you're going to be gathering information about the diffusability, usability, whether it's operating as intended. You'll track their use of the hypermedia.

One of the great joys of doing work on the computer is that the computer can log a lot of this information for you, so you're going to figure out what pieces of the hypermedia the teachers are paying attention to, how long does it stay on a particular page, how often do they come back to a particular clip.

You're going to propose to gather systematic, periodic interviews with teachers to identify what's facilitating or impeding them clicking on a hypermedia resource that the coach has recommended. Okay, so the other piece of this is that the coach wants you to go and look at this particular resource on the website. So what do the teachers say helps and doesn't help?

Then you want to look at the teachers, right, observe them when they're using this hypermedia. Again, gather the amount of time they spend on each clip or text and how many of the clips of related text are they viewing during the time on the computer?

Another possible kind of data you could collect is you could gather some think-aloud data when teachers were using the hypermedia. So for those of you who are not familiar with the think-aloud method: you would have the teachers sit down and click through the screens and you would ask them questions at certain moments and ask them to talk about what they're thinking about when they're clicking through the hypermedia.

And, again, you would propose to continue to refine and assess and gather these data until you get a consistent set of responses that tell you that teachers are viewing where you hoped they would go, right, so you have many multiple options when you have hypermedia, that they're going to the right place, and that they're able to use them in a systematic way.

All right. Let me read this question out. It says, "We want to develop curriculum materials, such as student activities. To implement it, teachers would need professional development. Can the Goal Two focus on the student materials alone? Is it also appropriate to propose developing both teacher and student materials in the same grant? If so, both would need evaluation pilot testing, correct?"

So let me answer the first question first. Certainly, Goal Twos can propose to focus primarily on the student materials. But you're absolutely right, that it's very rare to find a Goal Two development project that's primarily focused on student materials that doesn't also address teacher professional development.

I think it's perfectly appropriate to gather some pilot data and small-scale data from the teachers, but there needs to be a balance. So, oftentimes, you're going to need to have the student materials fairly well developed already before you can begin to develop the professional development materials, and I think there's a balance that you need to reach.

I think that I would recommend if you're struggling with trying to make the call in terms of where you are, that you should talk with your program officer so that they can help you think about what the right decisions are.

"In an earlier slide here, it says you mentioned coding data, but did not elaborate." I will definitely talk some more about coding the data.

When you think about coding the data, the question is, what do you include? In part this depends upon what kind of data you're proposing to collect. Clearly, it makes sense to use your tables and figures in appendix A to elaborate coding.

For example, if you're going to be gathering observational data, perhaps you have a coding sheet that you've already developed where you say here are the behaviors that I'm looking for, and you could certainly include that as a table or figure in appendix A.

If you're going to be collecting interview data, I think it would be really important to specify, if you already know how you're going to code the data, how you're going to do it, or what kinds of decisions you're going to use to make sense of that data -- what are the decisions and rules you're going to follow.

I'm trying to think of some other good examples here. Clearly, if what you're doing is counting behavior with software where you have all this information that's already being gathered, you should talk about how you're going to analyze that data. Are you just going to do some descriptive statistics on it? What are you going to do with all the information you're going to gather?

I hope that addresses some of the questions you had. We'll talk more about it as the slides go forward.

I'm sorry. I'm going backwards in my questions here. "If the intervention emanates from one previously used, which is to be improved based on new research, how should it be addressed in the proposal?"

I think that you should talk about that in your significance section. This is part of the theoretical and empirical foundation that you are going to be describing in terms of why you're needing to make modifications to an intervention that already exists. So I would definitely have a section that describes the intervention as it currently exists, describes whatever shortfalls or challenges that have been encountered in using it, and then talk about where the refinements come from -- how you know what changes to make.

Another question is, "What might appropriate outcomes be for systemic interventions and policies for special education, such as teacher behaviors, effective instructional practices, student behaviors, social and academic?"

I'm looking at my special ed colleagues who are here with me. Erin, do you want to?

ERIN: So, for systems and policies in special education, the things that we look at, maybe on the teacher level, might be things like, for example, alternate teacher certification and teacher effectiveness, depending on which certification route you took.

And then in terms of behaviors, we think of schoolwide or districtwide policies or those districts that, for example, implement PBS (positive behavior support) systems where it's more of a schoolwide procedure or intervention, but the outcomes can be student-level and they can be school- or district-level, depending on how you choose to measure them.

In terms of student academic outcomes, one of the things that a systemic level might be is something like an assessment for accountability. So there are all these accountability procedures in place, then they vary by state, and they all, you know, have federal guidelines, but they're all different. So you could study which sorts of assessment for accountability systems are the best for certain academic measures.

Dr. ALBRO: So, again, these are questions I want to encourage you at the end of our Request for Applications to talk with the program officer who's been identified for your particular topic area. We each have our own areas of expertise and we can really help you think through some of these specific questions.

So I have another question here which says, "In both of my examples, teacher development was targeted." This is true. "I suppose the primary focus was on the development of instructional activities that target student learning. Is it presumed that we must also assess the teacher's implementation of the instruction?"

Generally so, if it's the teacher who's delivering that instruction. So, it's often possible, say, in the context of an education technology grant or even a cognition and student learning grant, that the teacher is not the key deliverer of the implementation. And so, then, you wouldn't need to keep track of fidelity of implementation.

But in some ways, fidelity is too big of a word for this particular case. I mean it is fidelity, but the real key here, the real thing that you want to know is, is it possible for teachers to deliver or use these instructional activities that you've developed in the way you intended for them to be used? So that's a fidelity question. But, oftentimes, when folks think of fidelity of implementation, they're thinking about it with a large number of teachers.

Here you really want to know can the teachers do what we intended for them to do, and it's not always a straightforward process. So if what you've done is you've developed these instructional activities and you've had your graduate students be the ones who have tested out delivering these interventions with their own children, that may not translate well into teachers working in more typical educational settings.

I don't know if that answered your question or not, but I think that if the teacher is the person whom you intend to have deliver the intervention, then you do want to make sure you gather information that talks about whether the teacher can implement the materials or the activities in the way that you intended.

And then I have a question here. "Will there be a question and answer session at the end?" The answer is yes. And so this is a question about the role of school counseling and I'm going to actually hold this question until the end, but we will definitely come back and talk about it after we get through.

All right. We don't have too many more slides. So I want to get through these and then we'll be happy to entertain more questions and hear from you all and think together about good solutions, or possible solutions to the questions you have.

Slide Twenty-five:

One of the other components of development proposals is that you need to explicitly discuss the number of iterations that you're going to have to go through to get the curriculum material to where you want it to be. But then people will often call me and say, well, how many iterations? How many times do I need to test this curriculum? How many modifications do I need to make before I know it's fully developed?

And, unfortunately, there's not a single answer to that question because it's really going to depend upon the complexity of the intervention, it's going to depend upon how far along you already are, how many sort of early versions of the curriculum you have, and how you intend for it to be implemented.

So what's important for you to do in your application is to explain how many iterations you anticipate having to go through and to explain why you think it's a sufficient number. And it may not be, but you need to say, given what I know at this time, here's how many iterations I think it's going to take before I get to a fully developed intervention.

There are more questions coming in, but I think I'm going to go through a couple of more slides and I'll come back and answer the questions that are coming in.

Slide Twenty-six:

So, feasibility. I think this actually goes to my attempt to answer the question earlier just a couple of slides back. So, one of the components that you must address in your development proposal is the feasibility of the intervention. You need to demonstrate that the intervention can be implemented with fidelity.

This means that you want to make sure that it's able to be delivered in settings that represent the type of settings for which the intervention is intended and by users who are like those for whom the product is intended. And the users are the teachers (or the paraprofessionals, or whomever is the adult audience who's going to be delivering the intervention) as well as the child or the student who will be using the materials that come from that intervention.

So you need to spend enough time when you're setting up your development application, when you're setting up the proposal, saying, Here's what I expect it's going to look like – here's who the end-users are going to be. I expect this is going to be used by this type of learner in this type of setting. So long as you then propose to gather data from teachers in the settings that you've said is your target audience, your end-user, then you'll be able to answer this question about whether it's feasible for someone to actually deliver the intervention as intended.

But I think the critical piece is that you're really clear who your intended users are and that when you actually go back to test the intervention, to field test it, that the end-users are those whom you specified at the beginning of your proposal.

Slide Twenty-seven:

How do you measure the promise of the intervention? This is another point in the writing where I actually get calls—Help! So how do you know whether the intervention is operating as you intended and seems to be moving students in the direction you intended?

One is you should gather information on outcome measures. And, again, you define what those outcome measures are, but, clearly, if the goal is to change student behaviors or student learning, you need to have student measures. So, does performance on these outcome measures progress in the appropriate direction?

Generally, for things like reading and writing, you want to see an improvement in children's abilities to read and write, whatever you're targeting. If you're coming in under a social and behavioral type of a topic and your intervention is to decrease the number of aggressive episodes in a classroom, then you're going to want to see a decrease, right? So make it clear what the expected progress of the outcomes should look like.

And then you want to gather data that allows you to answer the question of whether the implementation of the intervention is associated with changes in activities and behaviors that are consistent with the theory of change.

So, again, it's really important to go back and look at your theory of change and describe how you're going to analyze the data you're going to collect during the field test of the intervention and how is that going to help you make decisions about whether your theory of change is actually the right theory of change -- is it operating in the way that you thought it would.

I think I'm going to pause here and look at some questions because the last couple of slides here are really focused on some of the Ps and Qs.

"Within a pilot, do we need to use a control group?" And the answer to that is no. There is no requirement for you to use a control group. I believe in the Request for Applications it states explicitly that pre/post data are sufficient.

"We are looking to do professional development with principals and education leaders. We hope to show an overall better functioning of schools and teachers. This has been shown to affect student achievement. We're going to try to show student improvement in the statewide test scores. Is this enough?"

If you can get changes in statewide test scores, I think everybody would be very, very, very pleased. I think what I would encourage you to do is not rely only on statewide test scores. There are two reasons for this. One is that in the course of a development project, it's only 3 years, and so you're working on developing these components and more than likely you may very well see change in leadership behaviors and teacher behaviors, but it may take more time than you have to get changes in statewide test scores.

So you want to think about what's the mechanism of change. So I'm going to just make this up because I have no idea where your project is. So you're going to do professional development with your principals. The hope is that the principals are going to change how they lead in the schools. Maybe they're going to do different professional development activities with their own teachers, maybe they're going to change their own behavior in the school, and then the goal is that that will then make the day run more smoothly and the teachers' behavior will change and that then will change students.

So in each of those steps you should be able to articulate different changes you are going to expect to see and you should describe those in your proposal and propose to collect systematic data about each of those changes over the course of your development project.

"With regard to iterations, you mentioned in a slide the idea of continue to refine and assess. Is this one iteration or many?" If you're continuing to refine, I think that would be an undefined number, basically, until it comes out as expected. Does that make sense?

Yes, it makes sense. I think that this notion of iteration is something that you can define in your own application and I would encourage you to make it clear to the reviewers how you're understanding iteration. Certainly the ongoing process of refining and making revisions can certainly lead to -- could be understood as iteration, right, because you're changing and you're making tweaks to what you're doing.

You can also iterate at a larger level in terms of a component of a curriculum. Maybe it's an entire unit that you're revising as opposed to this one particular behavior. So, one of the reasons that I don't like to specify the number of iterations, or really even to give a prescriptive definition of iteration, is that it really is going to depend upon the particular type of curriculum or intervention or materials you're developing.

So I think the best thing is for you to take the time to make it very clear to the reviewers: Here's my understanding of what I'm doing in terms of iteration. And to understand that it's going to be very unusual for you to hit upon the right combination of everything the first time you go out and do something.

Another question. "Would you please address the expectation in Goal Two of collaboration outside a single research institution?"

I don't think there's any stated expectation that there's collaboration outside a single research institution. Clearly, we're going to expect that there will be collaboration between the researchers and the teachers or the students -- whoever is going to be the end-user of the project, but that does not have to be a different research university or anything like that. I'm not sure if I'm answering your question. So just resend it if I didn't answer it.

And here's the second part. "Would you please address the expectation of classrooms and type of population that are sufficient for development?"

Again, I think this really depends upon what you're planning to develop. So I'm going to move away from teacher/professional development and talk a little bit about my own area.

If you're putting in a proposal for the interventions for struggling adolescent and adult readers and writers and you are proposing to work with struggling adolescent readers, you need to define how are you going to determine if someone's a struggling adolescent reader, what's the age group, how many grade levels below grade level do they need to be reading. And then once you specify that, that will specify the type of student that your intervention is targeting.

In terms of the type of classrooms: you need to specify whether you intend for this intervention to be used in the context of a remedial classroom, or in the context of an afterschool program, or maybe both. But that's up for the researcher to really define and lay out in terms of what they expect, how they expect the intervention to be used.

"Would single-subject design studies be sufficient for pilot data?"

I think that particularly in the case of a special education proposal where you're working with a population for whom there is only a small number of students, you could certainly use a single-subject design. And I'm going to look, again, to my special education colleagues and see if they want to elaborate on that. They are appropriate, is what I'm getting.

I think that if you were to do it in one of the sort of NCER applications, that you would have to spend time explaining how a single-subject design works because you're not going to have that same level of familiarity among the reviewers.

Another question here. "In a proposal, can reviewers be directed to a website for further information? For example, could they be directed to online video clips that illustrate the instructional approach?"

I'm going to let everyone know because this is a question that I actually get fairly frequently. The answer is that you may certainly include information about websites where people can go for additional information, but it should be understood to be like a bibliography, so there's no expectation or requirement that the reviewers are going to go to the website.

So you can include it, but make sure you include enough information in your proposal or you include screen shots in appendix B so that reviewers who don't have time to go to those websites still have adequate information to review the proposal.

"What is the starting date? If you put in a proposal for the October 2 deadline, the earliest possible start date is July 1, 2009, and the last possible start date is September 15, 2009.

"Is it appropriate to use random assignment in a Goal Two project to test potential outcomes and methodologies in preparation for a Goal Three project as long as the 25 percent limit is satisfied?"

It's appropriate, but you need to make it very clear that you're not trying to test the efficacy of an intervention in the sense that you would in a Goal Three proposal.

I have another question here. "If, as we are deciding whether or not our proposal would actually be appropriate to submit for any of this grant funding, once the webinar is over is it okay to call someone at IES and discuss some elements of our proposal and their appropriateness for the funding?"

Absolutely. All the program staff here are ready and willing to accept your phone calls. So what I would recommend that you do is go to the ies.ed.gov website and go to our different programs and projects and you can type in your topic area and you'll get a list of the program officers who are associated with the topic that you're interested in.

"Is this grant an annual or semi-annual competition?"

We generally have two deadlines a year. So we have a summer deadline. This year it was June 26 (2008). And we have a fall deadline. This year it's October 2 (2008). It is our intention and our expectation that this will continue. So we'll have an early summer and an early fall deadline in 2009 as well.

If you're not signed up for our IES Newsflash, that's another great way for you to get information about when new deadlines are set for future competition. So that's, again, on our main home page and I'd recommend that you go ahead and go on there and sign up for that.

"Can we assume that pilot data are different from the iterations in the development we've been discussing? Is pilot something that is done toward the end of a practice to check the progress of the completed intervention?"

Yes. Thanks. Sorry if I wasn't clear about that. The pilot data occur definitely at the end and it's where you're actually testing the entire intervention, whatever it is, in its fully developed form in the field setting where it's the teachers and the students whom you're intending to use it who are actually using it.

So what often happens in a development project, and I'm going to lay out a time line here and, please, take this as one possible way to do a Goal Two. It's not something that you have to follow.

But one of the patterns you could see is in the first year of a development project, the real focus of Year One is on developing the materials. And so what happens there, the applicant proposes to develop, say, one unit and they develop one unit and they do this by bringing in a group of teachers who have worked in this area. They get material from new teachers. They develop some materials, then they bring in three or four students of the right age group and they have them try out the materials.

Then they'll move on to the next unit. They'll develop that. They'll follow the same process and they sort of continue this process throughout the entire first year until they have a set of materials.

Then in Year Two, you could propose to do some smaller-scale tests where you maybe have teachers deliver the intervention to small groups of students to see if the teachers can do it fluidly to a group of students, and then you'll make revisions. And in Year Two you'll often see lots of the iteration happening.

So, the teacher will deliver it to a group of students. They'll notice that, say, the passage materials that accompany the reading instruction are too difficult for the students. The research team will then take that into account, will make modifications to the passages, and then have the teacher try it again. And so that's often where you see lots of iteration happening.

And then in the third and final year, you would have the fully developed intervention with all the components there and you'd ask several teachers to test it out in their typical classrooms during the time of the year when they would typically be delivering those materials and you'd gather pre and post data to see whether students' behavior or student outcomes were changing in the way that you expected. So I hope that's clear.

"Do you provide funds for high-end technologies for each teacher participant? What sort of stipend do we give the teachers?"

You know, these are the sorts of questions that I would really encourage you to talk about with your program officer. I mean the answer is depending upon the interventions, clearly we can provide funds to enable teachers to have, say, access to laptops. And the amount of stipends that are provided will vary tremendously because it will depend upon different school district requirements in terms of how much you can actually pay teachers, in terms of when you're asking them to work with you, in terms of developing those materials.

"For the number of students/classrooms that would be sufficient for Goal Two, should we do a power analysis even though we are not at the efficacy stage?"

I'm trying to think what the language in the RFA says. I would recommend against it. I don't know that there's any need to do a power analysis at this point and it may indicate to the reviewers that you're thinking about an efficacy study and not about a field test of the intervention.

"The earliest and latest start dates?"

So the earliest possible start date is July 1, 2009, for the October 2 deadline. And the latest possible start date, it's generally September 15, 2009.

"Can or should you not also develop iteratively your measures of fidelity?"

Certainly. I mean there's no reason why you couldn't do that and I think it really just depends upon where you are in this process. So if you have a proposed fidelity measure that you've not used before and you go out and you use it and you realize it's not actually capturing, it's not discriminating among the teachers who are working with fidelity or who are implementing it with fidelity or not, then you should definitely plan to make revisions to those measures.

So the question here is, "What is the percentage of Goal Two grants that are actually subsequently funded under Goal Three?"

I actually don't have that number in my head. I do know that there is definitely a progression and, in some ways, I'm not even quite sure how I could calculate that since all Goal Two grants don't come in and request funding for additional Goal Threes. But, clearly, that's a path that we do see and we are hoping that if the intervention is developed successfully, that you would, then, come in and request funding to carry out an efficacy study.

"When are we notified of acceptance or denial?"

Generally, you'll be notified sometime in June. I mean the timelines vary. So if the proposal comes in in October, you would certainly know no later than the official start date, right, which is July 1, 2009. But, generally, you would know in June; you would have some indication of where your proposal sat.

"Can we send a draft proposal to the program officer for informal review and invite their input to refine our final proposal?"

Yes, absolutely. And I would encourage any of you on the phone who are thinking about putting in proposals for the October 2 deadline to reach out to your program officer and they will be glad to review a draft proposal and give you feedback.

I have a question here, which says, "Can we use structural equation modeling for development projects?"

Potentially. But, again, this is something that you would really need to talk about with your individual program officer and help them think about how you're planning to use that technique.

"What falls under the 25 percent pilot data rule? Does the piloting of text and student assessments in Year Two in preparation for Year Three pilot of the intervention count towards the 25 percent?"

I don't think so. I think generally when we're thinking about the 25 percent of the pilot, the pilot data are really that full field test that you're doing when you've got all the pieces together and you want to test them all together to see whether, in fact, the fully developed intervention is operating as intended when delivered by the example teachers, who, you hope, are going to use it.

I'm going to just make sure. I want to get through all these slides, and then I'm happy to entertain some more questions as we come to the end of the call.

Slide Twenty-eight:

So as you all can see on your slides here, you should propose to use no more than 25 percent of your funds to support the collection of pilot data. Again, I hope I've been clear, that this is meant when you're trying to test whether the entire intervention is operating as intended in the field when delivered by teachers with the students for whom the intervention is intended. That's really the pilot data piece that we would expect to see in the final year of your proposed project.

When you think about what the peer reviewers are attending to, when they are reviewing the methods that you are proposing to use in your study, they're really focused on the methods that you are using for developing the intervention. So we've talked a lot about the process data that you're going to collect. We've talked a lot about this notion of iteration. We've talked about gathering fidelity information or feasibility information. When the reviewers are looking at your proposal, that is going to be the main focus of the review.

And, finally, just remember that the pilot data that you collect are not intended to be a test of the efficacy of the intervention. They really are intended to function as preliminary data to indicate to you that the intervention is fully developed and ready to then move to be tested in an efficacy study.

Slide Twenty-nine:

For those of you who have been asking for websites, the Request for Applications is available on the funding page. If you go to that funding page, you will notice when you click on the RFA, at the very end of each of the RFAs there is a list of the program officers who are responsible for each of the programs. So that's another very good way to find program officers for individual programs.

I mentioned the Newsflash for those of you who are thinking that October 2 may be coming up too quickly but are interested in putting in proposals for our deadline for next summer. If you sign up for the IES Newsflash, then you'll get an indication from the website as to when the next Requests for Application are going to be released or are released.

Slide Thirty:

The due date, again, is October 2, 2008. I think that's it.

All right. I'm going to go put the websites back up. So do we have any other questions from folks?

Announcements are not made in January and February, right? Typically you're going to receive some communication. It sort of depends upon when you get done. So, October 2 is when the proposals come in. For an October 2 deadline, review is not going to happen until the spring, so until sort of early spring, and, generally, it's about 6 weeks before we have indications about where proposals will go.

So for January, February, I think we were talking about four applications that had come in in June, and the earliest start date there is March 1. So individuals who are getting awards will typically be contacted asking for them to complete the remaining forms that they need to complete in order for the awards to be processed.

"Between the October deadline and the award announcement, would IES reach out to applicants for additional information?"

If you are in a category where you are being considered for an award and there are clarification questions that need to be asked, you would hear from IES staff, but it won't happen for all applicants and that's a case-by-case basis.

"Can you say more about how many applications you receive? How many you can or plan to fund and what lessons learned you would share about posting a successful proposal?"

The number of applications we receive has been growing, so for the National Center for Education Research competitions we received close to 700 applications last year and we funded about 12 percent of the applications that came in. For the special education program, the numbers are smaller, but the funding rate is comparable. So generally we fund between 10 to 12 percent of the applications we receive.

"When will applicants who submitted proposals for the January call find out about their awards?"

So that's probably the late January, early February date that the prior individual asked about. So you can expect to hear around that time.

"Is it true that a letter of intent is not required?"

Letters of intent are not required, but they are strongly encouraged. So we really ask you to submit them. So if you don't submit one, it doesn't mean that you can't apply; however, it would be very, very useful for us to have letters of intent.

We do have a better review process if you send your letters of intent in. So the reason we ask for letters of intent is to make sure that we have both an adequate number of reviewers and that we have reviewers with appropriate expertise sitting on the panels.

So if you have not sent in your letter of intent, and they're due today, if you've not sent it in, go ahead and send it in even if it's not fully fleshed out, even if you don't have a complete budget. None of that actually matters. But what we'd like to know is who are you, right, who's planning to come in and what's your general proposal?

This also means that program staff at the Institute can and will be in touch with you after they receive your letters of intent in order to follow up and offer their assistance.

"Will there be webinars for the other goals?"

Actually, there are no plans right now to have webinars for the other goals. If you looked on our website, we actually have a 3-hour grant writing workshop that goes through the requirements for each of the goals and you can download the slides there, and, eventually, you can listen to my voice on that although it's not up yet, but all of those slides are there. So that has additional details for each of the goals.

We have a question here. "Applications were supposed to be available today on grants.gov, but I've not been able to locate it. When do you expect them to be available on grants.gov?"

We talked with grants.gov this morning and my understanding is they will be available by 6:00 p.m. Eastern Standard Time, so they're just working on getting them posted today.

"Do you give weight to applicants' prior experience or is it okay for new investigators like me?"

We encourage applications from everyone who's qualified to conduct research and we certainly fund new investigators as well as more seasoned investigators. For the junior investigator on the phone, I am actually going to be doing a webinar on Wednesday where I'm specifically going to talk about young investigators and some of the things that they need to consider when putting in a proposal. So, I'd encourage you to join in that call for a discussion of those issues.

“Are nonfunded proposals returned with comments for improvement?"

The proposals themselves are not returned. However, you do get all of the reviewer comments. So, everyone who submits an application that was forwarded to review will receive reviewer comments and they're generally very helpful and are something that you can use to revise and resubmit, and I'd encourage you to talk with program officers here at the Institute to help you through that revision process.

Did I answer everybody's questions? Here we go.

"Can you say a little bit about outcome measures and whether psychometrics, validity, reliability information is necessary when submitting a Goal Two grant?"

I'm hesitating because I don't have a ready answer. I think that what's important about the outcome measures for a Goal Two project is that the reviewers need to understand what they are. So, particularly when you're gathering process data, if what you're planning to do is collect observations of student behavior, or if you're going to get think-aloud data, questions of psychometrics, validity, and reliability are really less important than that you've articulated well how you're going to make sense of the data you are collecting and how you're going to use them to revise the proposal.

There's no harm done if for your field test you're planning to collect standardized measures, if that's something you're intending to do. You could certainly include a table that lays out the psychometric characteristics of the tests you're intending to use.

I'm just going to wait here a few minutes. We'll wait a few minutes and see if any other questions have occurred to you as you've been listening.

I mean if we were going to sum up sort of what I hope the message is for a development project, it's to remember that the intent of a development project is to develop the intervention and that the proposal that you put together should make it very clear to the reviewers why this intervention needs to be developed, and your expectations for why the particular intervention you're putting together should change what's happening in this context now—should make it better, and what's the process that you're going to follow to make sure this intervention works in the way that you intend for it to work.

"Does IES encourage PIs to collaborate with statisticians for Goal Two grants?"

Again, this really depends on what kind of data you're depending to collect. So if, for example, you're going to be doing lots of observations of how teachers are implementing the curriculum and you want to gather qualitative descriptions of the events, then you're going to want to work with someone who has appropriate expertise to code and make sense of that data.

I'm trying to think of a case where you might want to have a statistician. I might see that if you want to go back to a Goal One phase where you really want to look at identifying malleable factors and you're going to do some secondary data analysis of a large dataset; then you may really need to bring in a statistician to assist you in that process.

"Did you say that the next competition is June 2010 or June 2009?"

We anticipate that the next deadlines will be in June of 2009, but that's an FY 2010 competition. So what happens right now is these competitions are for FY 2009. The date there, FY 2009, refers to the year in which the award would be granted if you were to receive it. So proposals that are put in next summer and next fall will be for FY 2010.

"If you are doing videotaping as part of prototype creation while collecting pilot study data, does the cost of videotaping and coaching count as part of your 25 percent of the pilot?"

I don't think so. That sounds like that's part of the development of the intervention. It's not part of the full field test of the intervention when you're going out to see if it can be used as intended.

"Wasn't July 10 the deadline for letters of intent?"

Yes. It got changed to August 4.

"Will IES consider proposals with two principal investigators from different institutions?"

Absolutely. You need to have subaward budgets put in for the subaward institutions and it's really good to include a letter of agreement from your cooperating principal investigator stating that they understand what their role in the project is.

"How many teachers can we work with in a development project and how many students?"

It really depends upon the nature of the work that you're doing. Generally, you're going to start out with a small number of teachers and students when you begin to develop the materials and you should, yes, really talk with your individual program officer about that particular decision.

We have a question here. It says, "Do most Goal Two awardees first have a Goal One grant?"

No. Actually, our Goal One grants is a relatively new topic area that we've had although what you would notice is that there are individuals who've done activities that look a lot like Goal Two activities prior to coming into Goal Two. But it's not a requirement that you have a Goal One grant prior to coming in for a Goal Two proposal.

I have another question here and I'm going to state that I don't know whether I'm going to be able to answer it or not and I think this may be a question that really needs to be addressed to the cognizant program officer.

It says here, "When we are choosing our outcome measures, do we just need to evaluate the effectiveness of the professional development in some way, or do we need to also make sure to show the improvement in student achievement, or is it enough to show that our research links the professional development theory to the student achievement?"

I'm assuming that this is a proposal where you're looking at teacher quality where the intent would be to develop a teacher quality intervention. And since the goal is -- you are certainly not going to be evaluating effectiveness, right. But the goal is, what you really want to do is you want to demonstrate that you're changing teachers, and, in order to make a case for coming in for efficacy, you'd want to show that students' learning is also changing in the intended direction, right, either improving for an academic outcome or decreasing in terms of a problematic behavior.

"What is the major difference between Goal One and Goal Two?"

An identification goal -- and again, all this information I want to refer you to the other webinar slides that are available on our website, as well as the RFA -- but for Goal One, it's an identification/exploration goal.

So the idea here is Goal One studies are when you're not quite sure what the malleable factors are. You're not quite sure what it is you want to change, but you have an idea of what the factors might be. So you want to gather some data either through exploring secondary datasets or doing some systematic classroom observation where you have, I don't know, factors that you think might be making a difference or not.

For folks who want more clarification on that: I'm happy to talk with them further and I can give you my phone number or my e-mail at the end of this. Actually, I'm going to ask Rob to put it down there. He can send it out.

All right. It's after 3:30, so I know that folks probably have other things that they need to do. Are there any other last minute questions?

My e-mail: so I'm Liz Albro, and my e-mail is elizabeth.albro@ed.gov. And e-mail is the best way to get in touch with me and I will forward your e-mail to the right person if I'm not the right person to answer your question.

If we don't have any other questions, I think I'm going to go ahead and sign off. I want to thank you all for all your questions. You all made this as interactive as possible given the webinar format and I hope that this was helpful and that I didn't raise more questions than I answered.

So have a great afternoon and we'll talk to you later.